

## Claims

1. A pigment whose particles have a length of from 2  $\mu\text{m}$  to 5  $\mu\text{m}$ , a width of from 2  $\mu\text{m}$  to 2  $\mu\text{m}$  and a thickness of from 50 nm to 1.5  $\mu\text{m}$  and a ratio of length to thickness of at least 2 : 1, the particles having a core of a metallically reflecting material having two substantially parallel faces, the distance between which is the shortest axis of the core, comprising
  - (a), optionally, on one parallel face of the core, an  $\text{SiO}_y$  layer wherein  $0.95 < y \leq 2.0$ , especially  $0.95 < y \leq 1.80$ ,
  - (b), on one parallel face of the core or, if an  $\text{SiO}_y$  layer is present, on the  $\text{SiO}_y$  layer, an  $\text{SiO}_x$  layer wherein  $0.03 \leq x \leq 0.95$ , especially  $0.05 \leq x \leq 0.5$ , very especially  $0.10 \leq x \leq 0.30$ , and
  - (c), on the  $\text{SiO}_x$  layer, an  $\text{SiO}_z$  layer, wherein  $0.95 < z \leq 2.0$ , especially  $1.0 \leq z \leq 2.0$ .
2. A pigment according to claim 1, comprising
  - (a), optionally, on one parallel face of the core, an  $\text{SiO}_y$  layer, wherein  $0.95 < y \leq 1.80$ , especially  $1.0 \leq y \leq 1.80$ , very especially  $1.40 \leq y \leq 1.80$ ,
  - (b), on one parallel face of the core or, if an  $\text{SiO}_y$  layer is present, on the  $\text{SiO}_y$  layer, an  $\text{SiO}_x$  layer wherein  $0.03 \leq x \leq 0.95$ , especially  $0.05 \leq x \leq 0.5$ , very especially  $0.10 \leq x \leq 0.30$ , and
  - (c), on the  $\text{SiO}_x$  layer, an  $\text{SiO}_z$  layer, wherein  $1.0 < z \leq 2.0$ , especially  $1.4 \leq z \leq 2.0$ , very especially  $z = 2.0$ .
3. A pigment according to either claim 1 or claim 2, wherein the metallically reflecting material is selected from Ag, Al, Au, Cu, Cr, Ge, Mo, Ni, Ti, Zn, alloys thereof, graphite,  $\text{Fe}_2\text{O}_3$  and  $\text{MoS}_2$ .
4. A pigment according to claim 3, wherein the thickness of the core is from 20 to 100 nm, preferably from 40 to 60 nm.
5. A pigment according to any one of claims 1 to 4, wherein the thickness of the  $\text{SiO}_x$  layer (b) is from 5 to 200 nm, preferably from 5 to 100 nm.
6. A pigment according to any one of claims 1 to 5, wherein the thickness of the  $\text{SiO}_y$  layer (a) is from 20 to 500 nm, preferably from 100 to 500 nm.

7. A method for producing the pigment according to claim 1, comprising the following steps:
  - a) vapour-deposition of a separating agent onto a carrier to produce a separating agent layer,
  - 5 b) vapour-deposition of an Al layer onto the separating agent layer,
  - c) optionally, vapour-deposition of an  $\text{SiO}_y$  layer onto the Al layer,
  - d) vapour-deposition of an  $\text{SiO}_x$  layer onto the Al layer or, if present, onto the  $\text{SiO}_y$  layer, wherein  $0.95 \leq y \leq 1.80$ , especially  $1.0 \leq y \leq 1.80$ , very especially  $1.1 \leq y \leq 1.50$ ,
  - e) optionally, vapour-deposition of an  $\text{SiO}_y$  layer onto the  $\text{SiO}_x$  layer,
  - 10 f) dissolution of the separating agent layer in a solvent,
  - g) separation of the  $\text{SiO}_x$ -coated aluminium flakes from the solvent.
8. A pigment obtainable by the method of claim 7.
- 15 9. A composition comprising a pigment according to any one of claims 1 to 6, or 8.
10. The use of a pigment according to any one of claims 1 to 6, or 8 in paints, textiles, ink-jet printing, cosmetics, coating compositions, plastics, printing inks and in glazes for ceramics and glass.